

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-026025**Date Inspected:** 31-Jul-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

<b>CWI Name:</b>	N/A	<b>CWI Present:</b>	<b>Yes</b>	<b>No</b>			
<b>Inspected CWI report:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Rod Oven in Use:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Electrode to specification:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Weld Procedures Followed:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Qualified Welders:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Verified Joint Fit-up:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Approved Drawings:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Approved WPS:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
				<b>Delayed / Cancelled:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Bridge No:</b>	34-0006	<b>Component:</b>	OBG Trial Assembly				

**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) at Trial Assembly Areas

Segment 14AW (Triangular Plate)

This QA Inspector witnessed final bolt tension verification on bolts connecting triangular plate connecting the stiffeners of Floor Beam and full height Longitudinal Diaphragm at elevations 1800 mm and at 3250mm from Bottom Panel at work point W4 (Cross Beam side) and W3 (Counter Weight side) at the following panel points. Inspected the bolt tensioning on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00722 dated July 31, 2011.

Triangular plates are installed at the following locations.

PP 125 (East and West side)

PP 125.5 (East and West side)

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PP 126 (East and West side)

PP 126.5 (East and West side)

PP 127 (East and West side)

PP 127.3 (East and West side)

The bolt sizes used were M22 x 90 RC Lot # DHGM220141 and the final torque value established was 500 N-m.

The bolt sizes used were M22 x 110 RC Lot # DHGM220067 and the final torque value established was 500 N-m.

The bolt sizes used were M22 x 75 RC Lot # DHGM220014 and the final torque value established was 473 N-m.

The bolt sizes used were M22 x 80 RC Lot # DHGM220140 and the final torque value established was 380 N-m.

The bolt sizes used were M22 x 85 RC Lot # DHGM220121 and the final torque value established was 393 N-m.

The Manual Torque wrench used was Serial No. XO2-666.

Please refer the pictures attached for more comprehensive details.

Segment 14BW (Triangular Plate)

This QA Inspector witnessed final bolt tension verification on bolts connecting triangular plate connecting the stiffeners of Floor Beam and full height Longitudinal Diaphragm at elevations 1800 mm and at 3250mm from Bottom Panel at work point W4 (Cross Beam side) and W3 (Counter Weight side) at the following panel points. Inspected the bolt tensioning on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00722 dated July 31, 2011.

Triangular plates are installed at the following locations.

PP 127.5 (East and West side)

PP 128 (East and West side)

PP 128.3 (East and West side)

PP 128.7 (East and West side)

The bolt sizes used were M22 x 90 RC Lot # DHGM220141 and the final torque value established was 500 N-m.

The bolt sizes used were M22 x 110 RC Lot # DHGM220067 and the final torque value established was 500 N-m.

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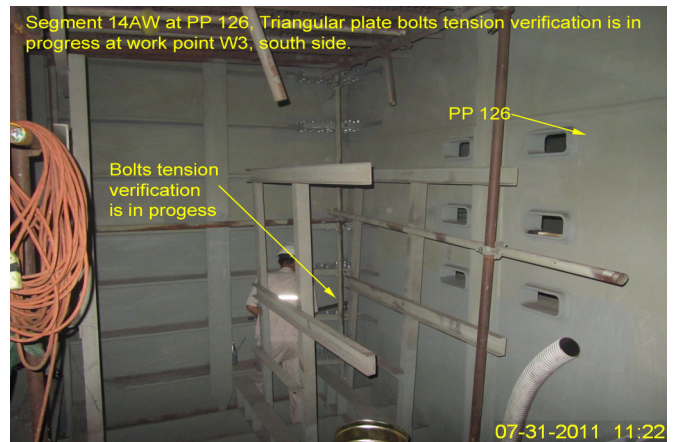
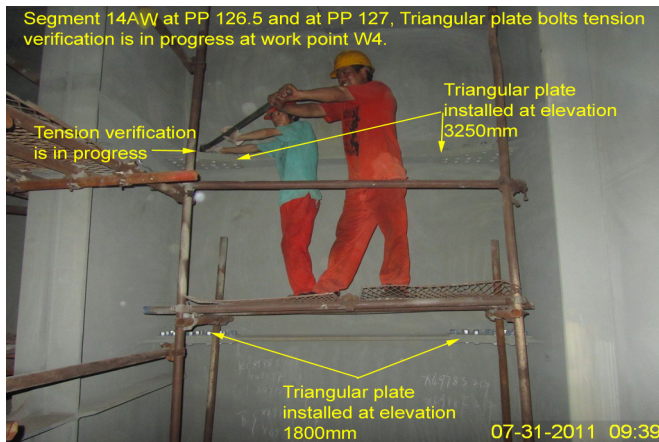
The bolt sizes used were M22 x 75 RC Lot # DHGM220014 and the final torque value established was 473 N-m.

The bolt sizes used were M22 x 80 RC Lot # DHGM220140 and the final torque value established was 380 N-m.

The bolt sizes used were M22 x 85 RC Lot # DHGM220121 and the final torque value established was 393 N-m.

The Manual Torque wrench used was Serial No. XO2-666.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



### Summary of Conversations:

No relevant conversations were reported on this date.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

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**Inspected By:** Math,Manjunath

Quality Assurance Inspector

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**Reviewed By:** Miller,Mark

QA Reviewer

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